SECTION II—CLAIMS

1. (Original) A mode scrambler, comprising:

an optical fiber adapter having a gap, a first end, and a second end, wherein a single mode optical fiber is coupled to the first end and a multimode optical fiber is coupled to the second end; and

a diffuser disposed in the gap.

- 2. (Original) The mode scrambler of claim 1 wherein the diffuser comprises a piece of Scotch® tape.
- 3. (Original) The mode scrambler of claim 1 wherein the diffuser comprises a thin piece of glass.
- 4. (Original) The mode scrambler of claim 1 wherein the diffuser comprises a thin piece of plastic.
- 5. (Original) The mode scrambler of claim 1 wherein the diffuser comprises a thin piece of acetate.
- 6 (Original) The mode scrambler of claim 1 wherein the diffuser comprises a thin piece of acrylic.
- 7 (Original) The mode scrambler of claim 1 wherein the diffuser comprises particulate suspended in a material having a uniform index of refraction.
- 8. (Original) The mode scrambler of claim 1 wherein the diffuser comprises air.
- 9. (Original) A method to scramble an optical signal, comprising:

disposing a diffuser between mating ends of an optical fiber adapter having a single mode end and a multimode end;

launching a single mode signal in the single mode end; and receiving a multimode optical signal in the multimode end.

10. (Original) The method of claim 9, further comprising disposing a piece of Scotch® tape between the mating ends of the optical fiber adapter.

- 11. (Original) The method of claim 9, further comprising disposing a thin piece of glass between mating ends of the optical fiber adapter.
- 12. (Original) The method of claim 9, further comprising disposing a thin piece of plastic between mating ends of the optical fiber adapter.
- 13. (Original) The method of claim 9, further comprising disposing a thin piece of acetate between mating ends of the optical fiber adapter.
- 14. (Original) The method of claim 9, further comprising disposing a thin piece of acrylic between mating ends of the optical fiber adapter.
- 15. (Original) The method of claim 9, further comprising disposing particulate suspended in a material having a uniform index of refraction between mating ends of the optical fiber adapter.
- 16. (Original) The method of claim 9, further comprising disposing air in the gap.